[0027] The teeth part may be provided in plural to have twelve slots formed between the teeth parts and the rotor has eight poles disposed therein.

[0028] According to another aspect of the present disclosure, an electric motor includes: a hollow-shaped stator configured to have a teeth part protruding on an inner surface thereof; and a rotor configured to be inserted into the hollow, have an outer facing the teeth part, and form an air gap spaced apart from the teeth part, in which the air gap includes: a first air gap part configured to be formed at a central portion; and second air gap parts configured to be each formed at an outside of the first air gap part and have an interval larger than the first air gap part.

[0029] The second air gap part may be formed between a front rotor groove and a back rotor groove and a bottom of the teeth part, in which the front rotor groove and the back rotor groove are each dented at a front and a back of a bridge part that is disposed between both ends of a pole provided therein with respect to a rotating direction of the rotor.

[0030] The first air gap part may be formed between a rotating connection surface and the bottom of the teeth part, in which the rotating connection surface is disposed between the front rotor groove and the back rotor groove and protrudes from the front and back rotor grooves.

[0031] A front end of the second air gap part disposed at one side with respect to the rotating direction of the rotor may be disposed ahead of a front end of the teeth part and a back end of the second air gap part disposed at the other side may be disposed behind a back end of the teeth part.

[0032] According to an aspect of the present disclosure, a compressor includes: a compressing part configured to compress a refrigerant; and an electric motor configured to provide a rotating force to the compressing part through a rotating shaft connected to the compressing part, wherein the electric motor includes: a hollow-shaped stator configured to have a teeth part protruding on an inner surface thereof; and a rotor configured to be inserted into the hollow, have an outer surface facing the teeth part, and have a plurality of poles provided therein, and the rotor is provided with a bridge part disposed between poles and has a front rotor groove and a back rotor groove that are each dented at a front and a back of the bridge part with respect to a rotating direction of the rotor.

BRIEF DESCRIPTION OF THE DRAWINGS

[0033] These and/or other aspects and advantages will become apparent and more readily appreciated from the following description of the embodiments, taken in conjunction with the accompanying drawings.

[0034] FIG. **1** is a diagram illustrating a compressor according to an exemplary embodiment of the present disclosure.

[0035] FIG. **2** is a diagram illustrating a first exemplary embodiment of an electric motor illustrated in FIG. **1**.

[0036] FIG. **3** is an exemplary cross-sectional view of the electric motor illustrated in FIG. **2**.

[0037] FIG. **4** is an exemplary enlarged view of the section A illustrated in FIG. **3**.

[0038] FIG. **5** is an exemplary enlarged view of a stator illustrated in FIG. **4**.

[0039] FIG. **6** is a cross-sectional view of a second exemplary embodiment of the electric motor illustrated in FIG. **1**.

[0040] FIG. **7** is an enlarged view of the stator illustrated in FIG. **6**.

[0041] FIG. **8** is a diagram illustrating the existing electric motor.

[0042] FIGS. **9** to **15** are exemplary comparison diagrams of exemplary improvement effects of the present disclosure and the related art.

DETAILED DESCRIPTION

[0043] Reference will now be made in detail to the embodiments, examples of which are illustrated in the accompanying drawings, wherein like reference numerals refer to the like elements throughout. The embodiments are described below to explain the present invention by referring to the figures.

[0044] To help understand the present disclosure, exemplary embodiments of the present disclosure will be described in more detail with reference to FIGS. **1** to **15**. The following exemplary embodiments will be described based on exemplary embodiments most appropriate to understand technical features of the present disclosure and the technical features of the present disclosure are not limited to the exemplary embodiments to be descried below but it is illustrated that the present disclosure may be implemented like exemplary embodiments to be described.

[0045] Therefore, the present disclosure may be variously changed within the technical scope of the present disclosure in accordance with the exemplary embodiments to be described below and the changed exemplary embodiments may be considered to be included in the technical scope of the present disclosure. Further, to help understand the following exemplary embodiments, in signs described in the accompanying drawing, relevant components among components performing the same operations in each exemplary embodiment are denoted by reference numerals on the same or extending line.

[0046] FIG. **1** is a diagram illustrating a compressor according to an exemplary embodiment of the present disclosure. As illustrated in FIG. **1**, a compressor **200** may be provided to be close to an accumulator **220**. The compressor **200** may include a casing **210**, an electric motor **100** installed at an upper portion in the casing **210**, and a compressing part **230** installed at a lower portion in the casing **210**. The compressing part **230** may be connected to the electric motor **100** through a rotating shaft **110**.

[0047] An inside of the casing **210** may be provided with a refrigerant receiving part **211** that receives a high-pressure vapor refrigerant compressed by the compressing part **230** and an oil receiving part **212** receiving compressor oil that smoothes a rotation of the electric motor **100** and decreases a temperature in the casing **210**.

[0048] The compressing part **230** may be provided in the casing **210** and may include first and second cylinders **233** and **235** that have a compression space partitioned from each other. The compressing part **230** may include a plurality of bearing plates **232**, **234**, and **236** that form the compression space together by covering upper and lower portions of the first and second cylinders **233** and **235**, respectively. The bearing plates **232**, **234**, and **236** may support the rotating shaft **110**.

[0049] The first and second cylinders **233** and **235** may include first and second rolling pistons **240** and **250** rotating while having different centers in the compression space formed therein. The illustrated compressor **200** includes the first and second cylinders **233** and **235**, but the present